1. Record Nr. UNINA9910734829603321

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Titolo	The human locomotor system : physiological and technological foundations / / Thompson Sarkodie-Gyan, Huiying Yu
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2023
ISBN	3-031-32781-0
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (315 pages)
Disciplina	361 612.0145
Soggetti	Human locomotion Human mechanics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Chapter 1. Introduction to the Human Locomotor System -- Chapter 2. Significance in the Understanding of the Human Locomotor System -- Chapter 3. Challenges and Concerns to Society -- Chapter 4. Key Determinants in Human Locomotor System -- Chapter 5. Measurements in Human Locomotor System -- Chapter 6. Sensors/Transducers in Human Locomotor System -- Chapter 7. Technology initiatives in human locomotor systems -- Chapter 8. Artificial Intelligence in Human Locomotor System.
Sommario/riassunto	The textbook describes the complexity of the human dynamic behavior in space and its ability to produce coordinated, adaptive, dynamically stable movements under steady conditions while negotiating complex terrains and experiencing unexpected perturbations. Applying fundamental theories of biomechanics and physiology, the authors further consider the physical, perceptual, and motor aspects of the locomotor system towards the analysis of how humans can behave adaptively in space by virtue of their intelligent sensory-motor functions and to illuminate our understanding of how this complexity in behavior can provide insight into the neural control of locomotion of the musculoskeletal system. The text provides a foundation for describing the normal and abnormal human locomotor systems. The Human Locomotor System: Physiological and Technological

Foundations is intended as a primary text for upper-undergraduate and graduate-level courses in neuroscience, gait analysis, kinesiology, physical therapy, sports science, and biomedical and rehabilitation engineering. It is also a valuable professional reference for scientists and engineers at medical and pharmaceutical companies involved in bioengineering research and development. Offers foundational coverage of the topic; Provides new insights, recent developments, and case studies; Covers advances in the application of sensors and transducers.